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LETTER TO THE EDITOR

Criticizing Vitamin D Level in Pregnant Women After Gastric Bypass

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I read with interest the paper entitled as "Non-pregnant Women Have a Lower Vitamin D than Pregnant Women after Gastric Bypass", by Cruz et.al. [1]. When we compare pregnant with non-pregnant women after gastric bypass, we should consider some issues. Are these two different populations really comparable? Do they have similar baseline characteristics, specifically vitamin D and its related hormones affecting vitamin D level? Should the confounders like supplementation intake be adjusted or the compliance of use be considered? It seems the answer to all of the above questions is yes. Neglecting the timeline of the events or natural history of each disease would eventually result in reverse causation. The causal pathway is also important. Does pregnancy really cause higher vitamin D level? It is very unlikely. The role of important factors predispose pregnant women to have higher level of vitamin D must be considered. If the level of other minerals and vitamins is compared between pregnant and non-pregnant women, the results will be the same most of the time, and such comparison will not help to solve an important question. Despite, following pregnant women in different situations (before, during, and after pregnancy in each case) would elucidate either pregnancy or supplementation is important for such change in vitamin D level. Moreover, knowing supplementation prescription and adherence will help adjust the analyses for the confounders and assess their role in vitamin D level to answer either supplementation or pregnancy itself has effects on vitamin D level. There are some cases with and without supplementary minerals and vitamins and also different adherence to proposed supplementation.

Highly positive correlation between calcium level and number of pregnancies also shows the role of supplementation on serum levels of vitamins and minerals in this study population.

When non-parametric tests are applied for comparing means between groups, it seems that distributions of quantitative variables are not normal and variances are not equal. So, Kendall is more suitable than Pearson correlation coefficient for evaluation of correlation between quantitative variables. Additionally, Kendall is preferred to Spearman because of low sample size (lower than 40 in subgroups).

When there is no age difference between the two groups, the mean age value is superior to p value because the clinical difference is more important than statistical significance. However, borderline p values like 0.06 can statistically be considered significant, specifically with such a low sample size in each group. Moreover, it is better to say that age difference does not affect the results instead of inferencing that groups were paired by age. Authors want to mention that age is not different. When the age is paired, it means that each case in G1 with G2 is paired, while authors have a frequency matched groups and not paired-match ones.

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Compliance with Ethical Standards

Conflict of Interest The author declares that he/she has no conflicts of interest.

Informed Consent Not applicable.

Human and Animal Rights Not applicable.

Reference

1. Cruz S, de Matos AC, da Cruz SP, et al. Non-pregnant women have a lower vitamin D than pregnant women after gastric bypass. Obes Surg. 2020;30(7):2558–65.

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